

they began to abate a little in their violence, though they were not quite over at sun-set. I had almost forgot to tell you, that this strange phænomenon was renewed on Monday morning a little before nine, and lasted for an hour and an half; but the motion of the water was not near so violent as the day before. What is very remarkable, there was not the least breath or gale of wind on Sunday till one o'clock : a circumstance, which helped us not a little in our observations.

LXXIII. *Accounts of the Irregularities of the Tides at Chatham, Sheernefs, Woolwich and Deptford, in Feb. 1756. Communicated by the Rt. Hon. George Lord Anfon, F. R. S.*

L E T T E R I.

S I R,

Read Feb. 26, 1756. **T**HIS acknowledges the receipt of your letter of the 21st instant; in return to which I have sent you, for my lord Anfon's information, an account of the irregularity of the tides, having taken particular notice of them by the *Lys*, a French ship, having broke from her moorings three times in that week. The first time was on Thursday the twelfth instant, at about ten in the morning, it being then about high water, or rather ebb; so that we could not get her off that tide, but attended and hove her off the next, at about nine at night, which was sooner than we expected

pected by an hour and half. We then put her to another mooring, and about half past eleven the same night, she broke from them also, and came on shore near the dock, it being then a small matter ebb, so that we could not get her off that tide, but attended her the next, till half past eleven on Friday morning in order to do it, (it then being about the time of high water) but could not, the tide being not so high by five or six feet as it was the tide before, though it should have been higher, as they were encreasing. And I further took notice at the same time, that the tide was at a stand several minutes, and then flowed again near a foot in height before it ebb'd, and the next tide, at half past nine at night, we got the ship off, though we did not expect she would have floated till near twelve: and again in transporting her up to her moorings, we observed, that there was little or no tide ran from ten to twelve, which was about the time of high water; which we greatly wondered at, as it was quite calm. All which irregularities I imagine to be owing to the wind, having had very hard gales for most part of that week; but since have observed nothing in them particular. Pray my humble duty to his lordship. I am with my best respects,

S I R,

Chatham-yard, Feb. 23, 1756. Your most obedient

humble servant,

To Philip Stephens, Esq;

Michael Godden.

L E T T E R

L E T T E R. II.

S I R,

Read Feb. 26,
1756.

IN obedience to my lord Anson's commands communicated to me by your letter of the twenty-first, I herewith transmit you the best accounts I could collect, together with my own observations on the tides at this place from the ninth to the nineteenth instant, and beg leave to observe to you, that the day tide on the thirteenth instant was very remarkable; for it ebb'd no more than two feet and a half for four hours after high water, when it was observed to flow again for a few minutes; then ebb'd again, but so little, that at low water, we had seven feet water at the stern of the dock, which is five feet more than was ever known to be. It blew very hard in the morning on the flood, with the wind to the southward of the west, and on the ebb in the afternoon the wind abated and veered to the north-west, to which I then, in part, attributed this phænomenon, as a northerly wind forces water into this river, and always makes high tides, and a southerly wind the contrary.

Sheerneys, Feb. 23,
1756.

Your most obedient and
most humble servant,

Michael Monarty.

To Philip Stephens, Esq;

| <i>Year, Month and Day.</i> | <i>Time of High-Water.</i> | <i>Depth of Water.</i> | <i>Wind.</i> |
|---------------------------------|------------------------------------|----------------------------|--------------|
| 1756, | | Feet, Inches, | |
| Feb. 9, | $\frac{1}{4}$ past 6 in the morn. | 12, 8. | S. by W. |
| Ditto. | $\frac{3}{4}$ past 6 at night. | 9, 10. | S.S.W. |
| 10th, | $\frac{1}{2}$ past 7 in the morn. | 13, 6. | Calm. |
| 11th, | $\frac{1}{4}$ past 9 at night. | 13, 6. | S.W. |
| 12th, | 10 at night. | 15, 5. | W.S.W. |
| 13th, | $\frac{3}{4}$ past 10 in the morn. | 11, 0. | Ditto. |
| Ditto. | $\frac{1}{4}$ past 11 at night. | 15, 11. | W.N.W. |
| 14th, | $\frac{1}{2}$ past 11 in the morn. | 12, 6. | W.S.W. |
| Ditto. | 12 at night. | 15, 0. | W. |
| 15th, | 5 min. past 12 in the morn. | 17, 0. | W. by N. |
| 16th, | $\frac{1}{4}$ past 12 in the morn. | 11, 8. | S.W. |
| Ditto. | $\frac{3}{4}$ past 12 P. M. | 18, 0. | W.N.W. |
| 17th, | $\frac{1}{2}$ past 1 in the morn. | 16, 0. | Ditto. |
| 18th, | $\frac{1}{4}$ past 1 in the morn. | 17, 0. | E.S.E. |
| 19th, | $\frac{3}{4}$ past 2 in the morn. | 17, 6. | N.W. |

L E T T E R I I I.

S I R, Woolwich Yard, 25 Feb, 1756.

Read Feb. 26,
1756. **I** Am favoured with yours of the 21st instant, signifying my lord Anson's commands, to send you such observations, as I have made myself, or the best accounts I may be able to collect from others, of the tides for the last week, and even for some days this week, being very irregular and unusual. And in obedience to your said letter, I have collected the best accounts I can, and with some observations I made myself, have sent them

them inclosed for his lordship's information: and am,
with due respects,

S I R,

Your most obedient servant,

Walter Taylor.

To Philip Stephens, Esq;

1756
Feb.

Woolwich-Yard, 25 Feb. 1756.

Monday 9, wind S. fresh gale and cloudy, tides very irregular.

Tuesday 10, S.W. fresh breeze with rain, ditto

Wednesday 11. S.W. fresh breeze and frosty, ditto.

Thursday 12, S.W. blue hard and cloudy; the night tide flowed about two feet ten inches higher than the morning tide.

Friday 13. W.N.W. blew hard and cloudy; the night tide flowed about three feet higher than the morning-tide.

Saturday 14, S.W. fresh gale and cloudy; tides more regular.

Sunday 15, W. fresh breeze and cloudy, ditto.

Monday 16, As it drew near the time for launching his majesty's ship Royal-George at this yard, I took more notice, and observed, that this day we had the wind at W. and W. by N. a strong gale, and the ebb-tide drained well out. On the flood, we had a good spring-tide.

Tuesday 17, The wind flew to W.S.W. a strong gale, which drained the ebb-tide more confide-

X x x 2

rably

rably out than yesterday; and on the flood we had a good spring-tide, much the same water as yesterday.

Wednesday 18. About two o'clock this morning, the wind was at E. a fresh breeze and hazy; (but I believe in the northern seas it might then blow a strong gale at N). As the day came on the gale encreased, and blew hard at N.E. with snow. The flood this day I observed came in much sooner than usual, and seemed to flow gradually at first, but between one and two p. m. the tide flowed several feet, as on a sudden, and continued flowing till three quarters past three, being some time longer than it was expected it would, and we had a high tide.

Thursday 19. The wind was W.N.W. a fresh gale and frost. And this day's flood did not hold so long by a quarter of an hour as yesterday's, and not so much water by several feet. The wind being to the westward, and a frost, greatly check'd the tide.

Since which, the tides have been very regular.

Walter Taylor.

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L E T T E R I V.

Depford-yard, 24 Feb. 1756.

*An Account of the Moon's Age, Time of High-Water
at the Double-Dock-Gates, Observations of the
Wind and Weather.*

Read 26 Feb. 1756.

| Day of the Month. | Moon's Age. | Time of High Water. | Height of Water at the Double- Dock-Gates. | Wind. | Observations of the Weather. |
|-------------------------|----------------|---------------------------|--|----------|---------------------------------|
| 1756 | Days. | Hrs. Mi. | Feet Inches. | | |
| Feb. 2 | 12 | 10 3 | 14 6 | W. | Cloudy with hard gales. |
| 13 | 13 | 11 0 | 14 0 | S.W. | Fair. |
| 14 | 14 | 12 0 | 15 6 | S.W. | Ditto. |
| 15 | 15 | 1 0 | 13 0 | S.W. | Cloudy with rain. |
| | Full | | | | |
| 16 | 16 | 2 0 | 15 6 | W. by N. | Fresh gales. |
| 17 | 17 | 3 0 | 16 0 | N.E. | Ditto. |
| 18 | 18 | 3 20 | 16 6 | N.E. | Cloudy. |
| 19 | 19 | 4 0 | 15 3 | N.E. | Fair. |
| 20 | 20 | 4 30 | 15 6 | S.W. | Ditto. |
| 21 | 21 | 5 0 | 14 8 | S.W. | Ditto. |
| 22 | 22 | 6 15 | 14 4 | S.W. | Ditto. |
| 23 | 23 | 7 30 | 14 2 | N.W. | Little wind, foggy |